N97P325

FIG. 1

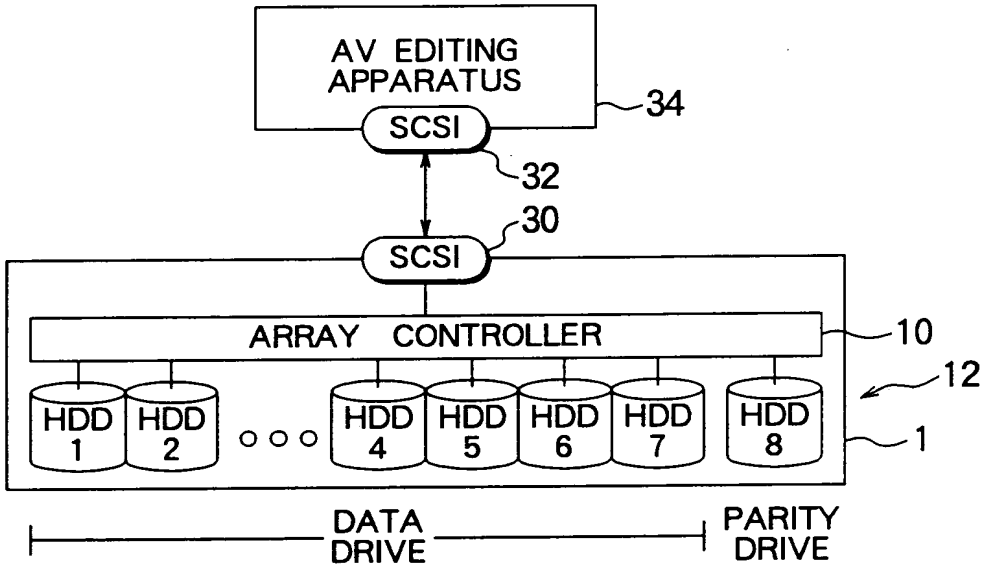


FIG. 2

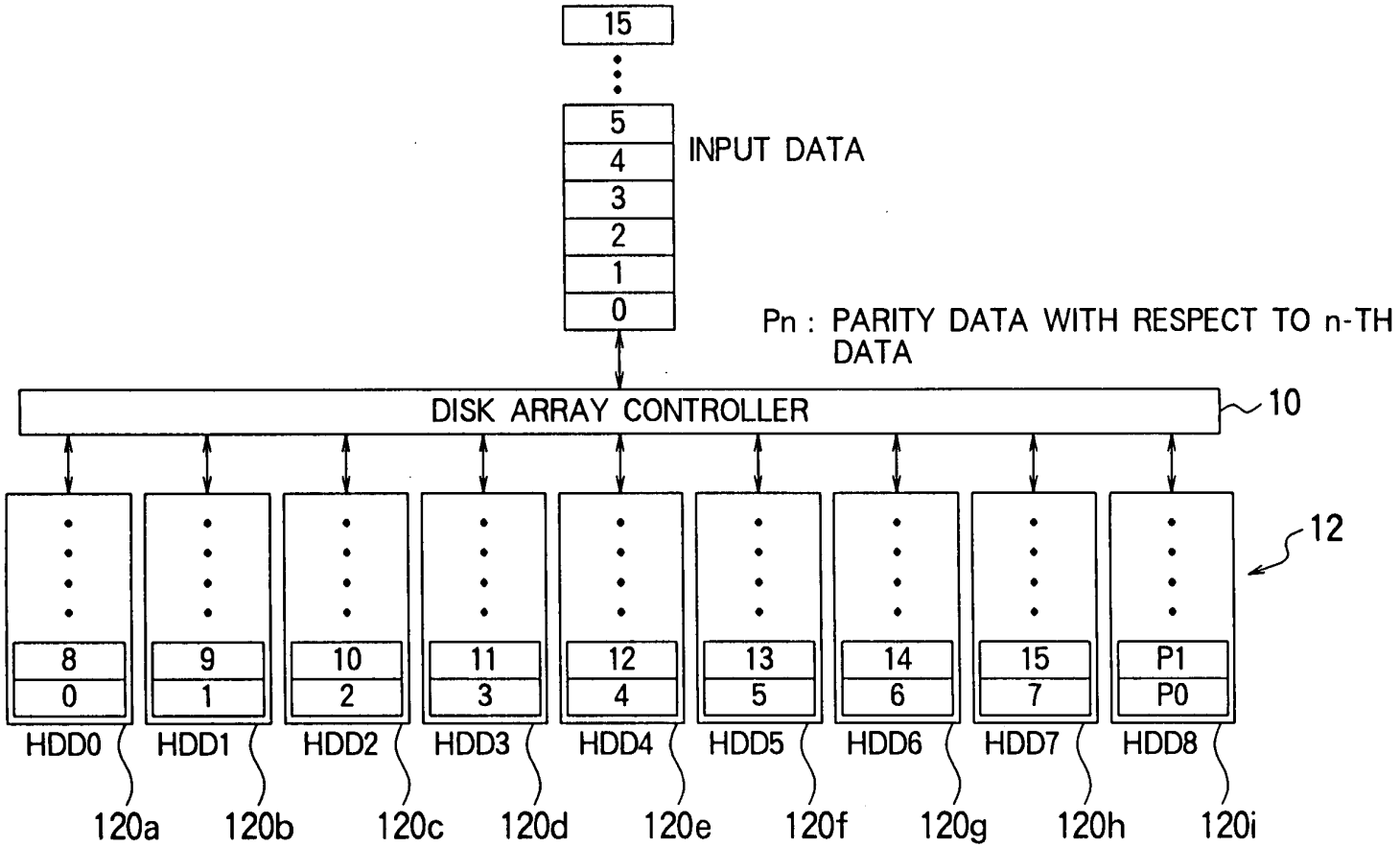

15
5
4
3
2
1
0
INPUT DATA
Pn : PARITY DATA WITH RESPECT TO n-TH DATA
DISK ARRAY CONTROLLER
10
12
8
0
9
1
10
2
11
3
12
4
13
5
14
6
15
7
P1
P0
HDD0
HDD1
HDD2
HDD3
HDD4
HDD5
HDD6
HDD7
HDD8
120a
120b
120c
120d
120e
120f
120g
120h
120i

FIG. 3

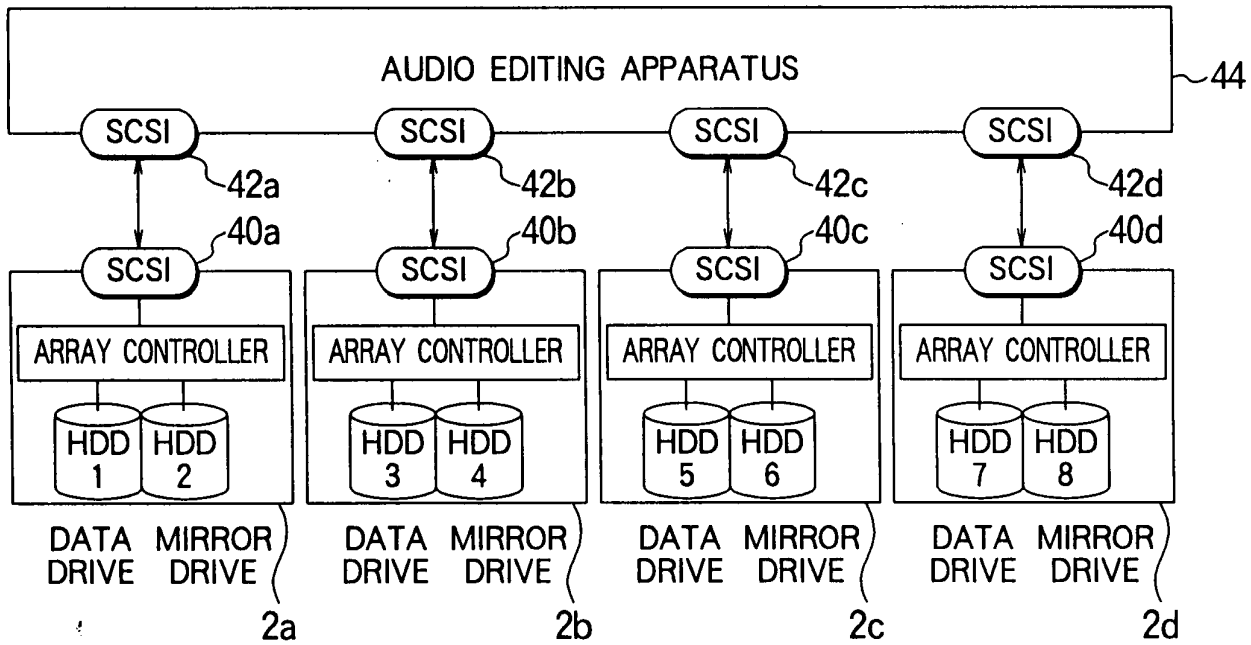
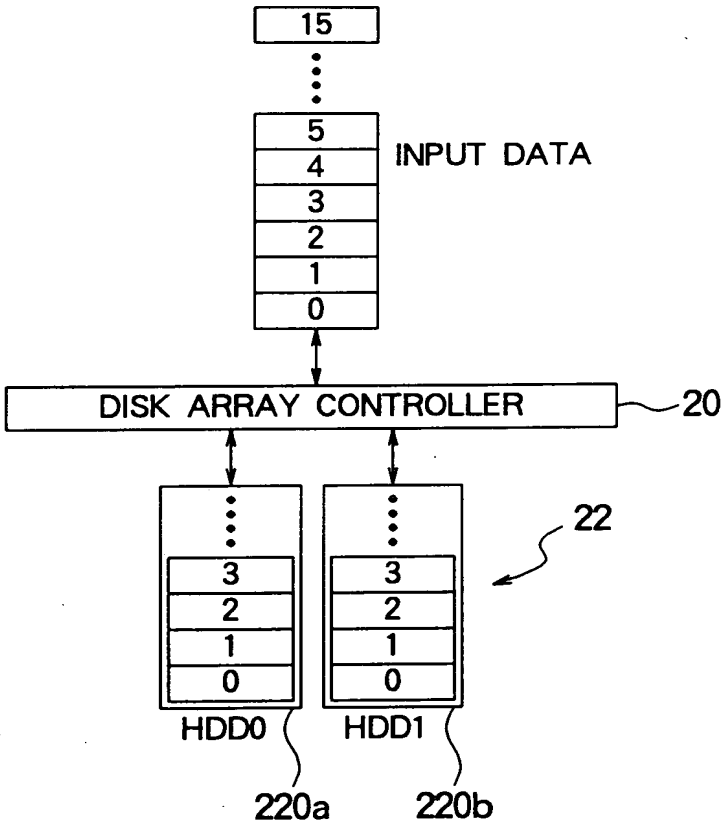

AUDIO EDITING APPARATUS
44
SCSI
SCSI
SCSI
SCSI
42a
42b
42c
42d
40a
40b
40c
40d
SCSI
SCSI
SCSI
SCSI
ARRAY CONTROLLER
ARRAY CONTROLLER
ARRAY CONTROLLER
ARRAY CONTROLLER
HDD 1
HDD 2
HDD 3
HDD 4
HDD 5
HDD 6
HDD 7
HDD 8
DATA DRIVE
MIRROR DRIVE
DATA DRIVE
MIRROR DRIVE
DATA DRIVE
MIRROR DRIVE
DATA DRIVE
MIRROR DRIVE
2a
2b
2c
2d

FIG. 4


15
5
4
3
2
1
0
INPUT DATA
DISK ARRAY CONTROLLER
20
22
3
2
1
0
3
2
1
0
HDD0
HDD1
220a
220b

2a~2d

FIG. 5

HDD0
~
HDD8
SEEK+ ROTATION WAITING
CH1 DATA ACCESS
SEEK+ ROTATION WAITING
CH2 DATA ACCESS
SEEK+ ROTATION WAITING
CH3 DATA ACCESS
SEEK+ ROTATION WAITING
CH4 DATA ACCESS

FIG. 6

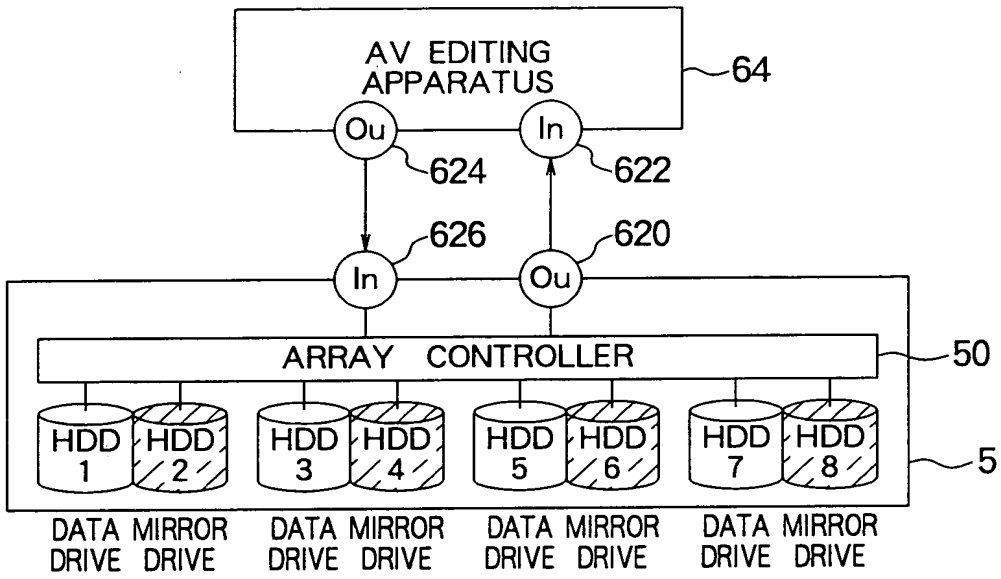

AV EDITING APPARATUS
64
Ou
In
624
622
626
620
In
Ou
ARRAY CONTROLLER
50
HDD 1
HDD 2
HDD 3
HDD 4
HDD 5
HDD 6
HDD 7
HDD 8
5
DATA DRIVE
MIRROR DRIVE
DATA DRIVE
MIRROR DRIVE
DATA DRIVE
MIRROR DRIVE
DATA DRIVE
MIRROR DRIVE

FIG. 7

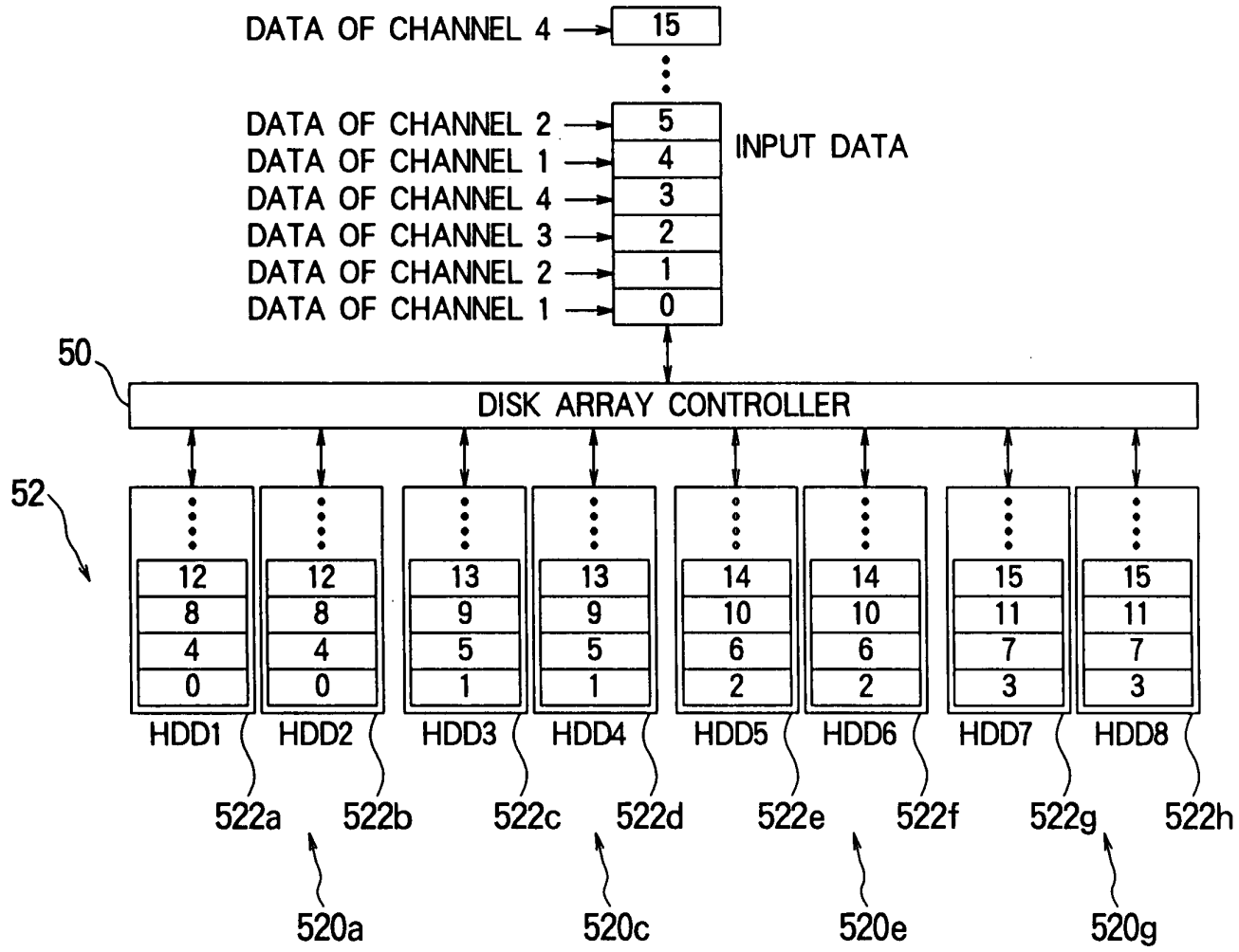

DATA OF CHANNEL 4
15
DATA OF CHANNEL 2
DATA OF CHANNEL 1
DATA OF CHANNEL 4
DATA OF CHANNEL 3
DATA OF CHANNEL 2
DATA OF CHANNEL 1
5
4
3
2
1
0
INPUT DATA
50
DISK ARRAY CONTROLLER
52
12 8 4 0
12 8 4 0
13 9 5 1
13 9 5 1
14 10 6 2
14 10 6 2
15 11 7 3
15 11 7 3
HDD1
HDD2
HDD3
HDD4
HDD5
HDD6
HDD7
HDD8
522a
522b
522c
522d
522e
522f
522g
522h
520a
520c
520e
520g

FIG. 8

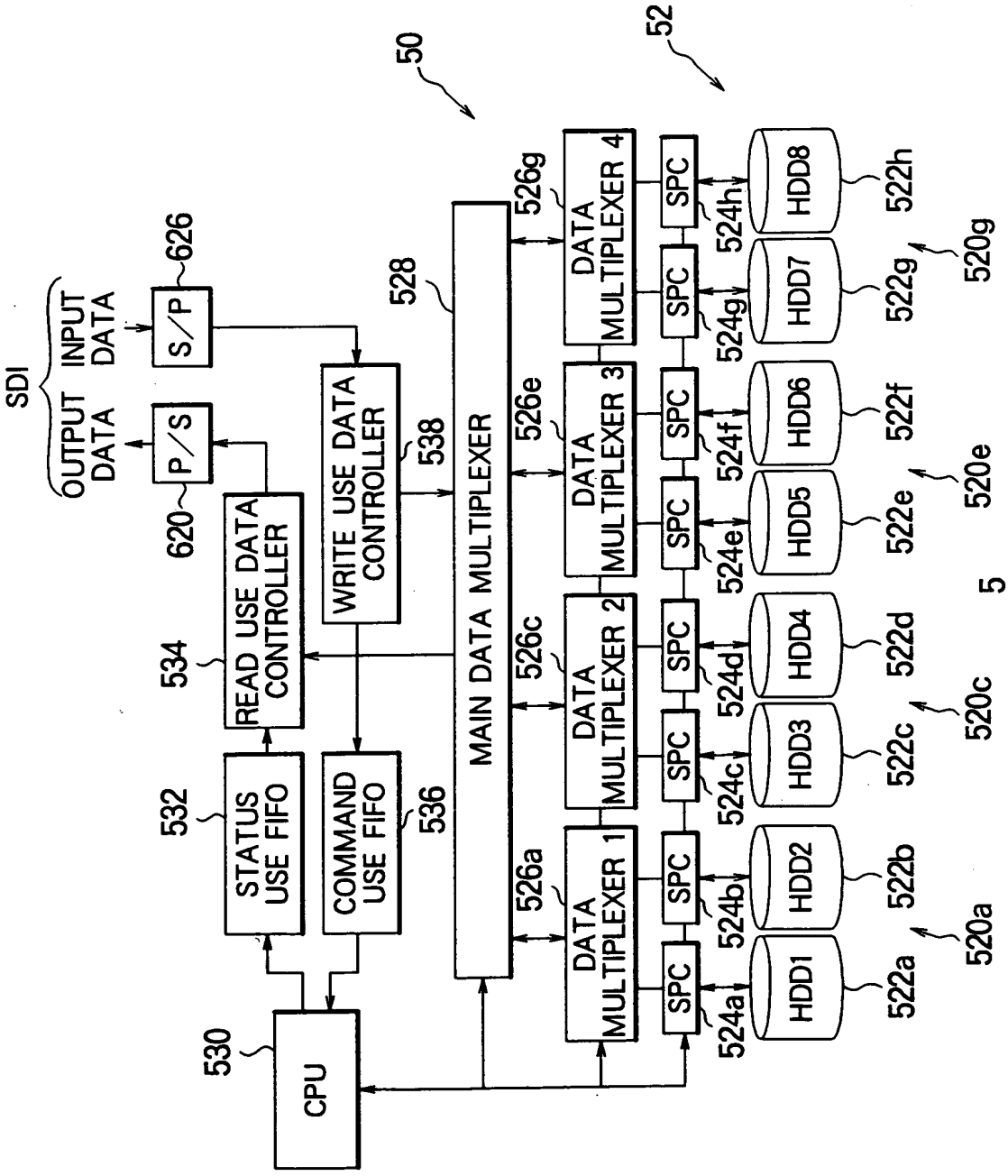

SDI
OUTPUT DATA
INPUT DATA
P/S
S/P
620
626
READ USE DATA CONTROLLER
WRITE USE DATA CONTROLLER
534
538
STATUS USE FIFO
COMMAND USE FIFO
532
536
CPU
530
MAIN DATA MULTIPLEXER
528
50
52
DATA MULTIPLEXER 1
DATA MULTIPLEXER 2
DATA MULTIPLEXER 3
DATA MULTIPLEXER 4
526a
526c
526e
526g
SPC
524a
524b
524c
524d
524e
524f
524g
524h
HDD1
HDD2
HDD3
HDD4
HDD5
HDD6
HDD7
HDD8
522a
522b
522c
522d
522e
522f
522g
522h
520a
520c
520e
520g
5

FIG. 9

SYNC
COMMAND/ STATUS DATA
CH1 DATA
CH2 DATA
CH3 DATA
CH4 DATA
CH1 DATA
CH2 DATA
CH3 DATA
CH4 DATA

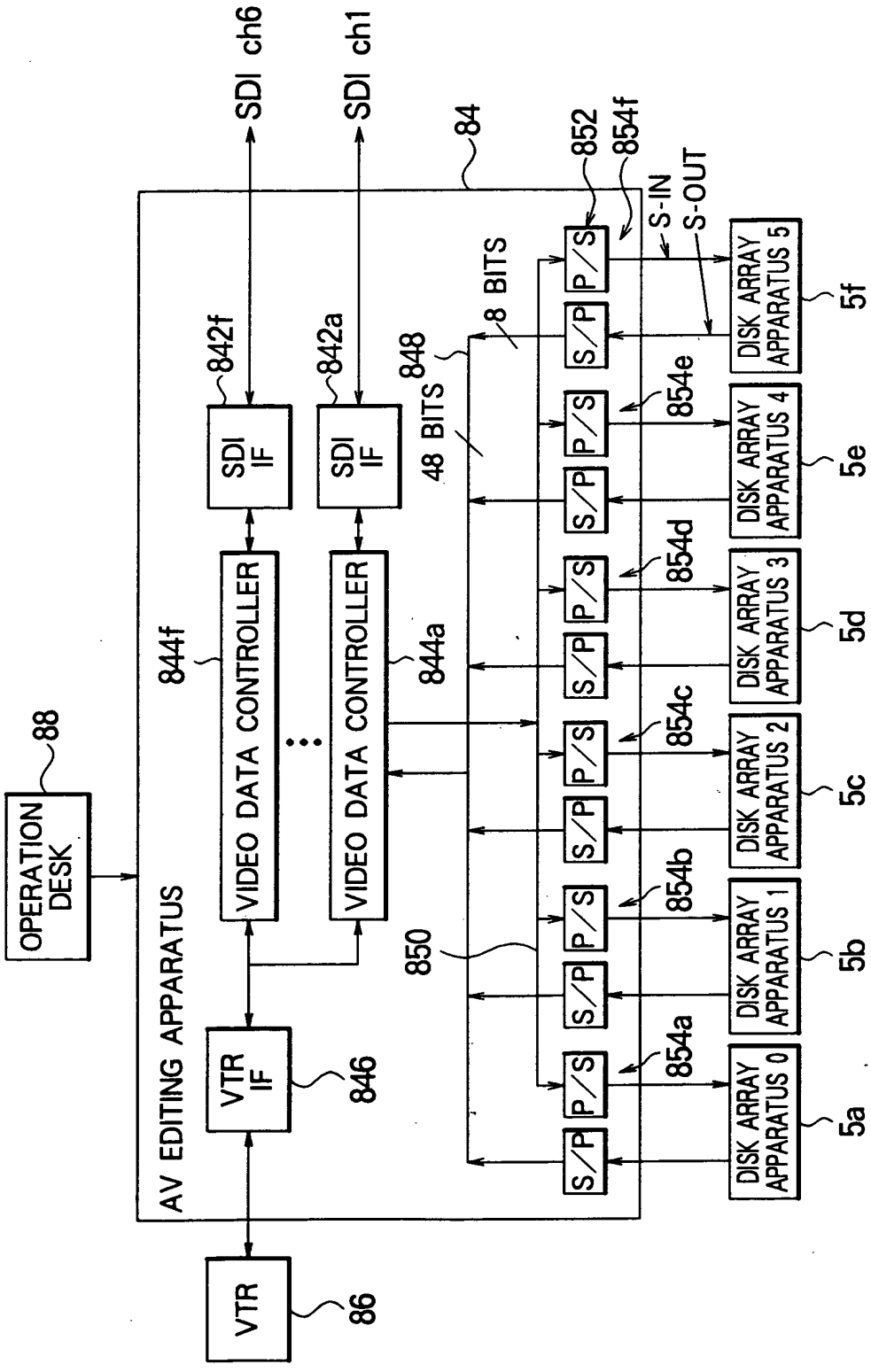
FIG. 10A

FIG. 10B

FIG. 10C

FIG. 10D

FIG. 11


OPERATION DESK
88
AV EDITING APPARATUS
VTR
86
VTR IF
846
VIDEO DATA CONTROLLER
844f
VIDEO DATA CONTROLLER
844a
SDI IF
842f
SDI IF
842a
SDI ch6
SDI ch1
84
852
854f
S-IN
S-OUT
8 BITS
48 BITS
848
850
S/P
P/S
854a
854b
854c
854d
854e
DISK ARRAY APPARATUS 0
5a
DISK ARRAY APPARATUS 1
5b
DISK ARRAY APPARATUS 2
5c
DISK ARRAY APPARATUS 3
5d
DISK ARRAY APPARATUS 4
5e
DISK ARRAY APPARATUS 5
5f
8